

### **AMENDMENTS TO THE CLAIMS**

Please amend the claims as follows:

#### **Listing of Claims:**

Claim 1 (Currently Amended): A method to provide continuity of service in a radio broadcasting system, wherein the radio broadcast system includes at least one modem using a COFDM technique, and said radio broadcasting system is configured to transmit N time frequency cells modulated independently of one another, the method comprising:

at transmission,

    sending a number  $N_1$  of cells conveying signals for transmission of a digitized audio signal  $S_1$ , and

    sending a number  $N_2$  of cells conveying signals for transmission of an analog signal  $S_2$ ;

at reception,

    differentiating, in a received signal  $S_r$ , between at least the digitized audio signal  $S_1$  and the analog signal  $S_2$ ;

    replacing the digitized audio signal  $S_1$  by the analog signal  $S_2$  conveyed by the cells  $N_2$  when the signals of the  $N_1$  cells cannot be decoded,

wherein a proportion of cells  $N_1$  for a passband of about 10 kHz ranges from 50% to 80% of a quantity N of available cells.

Claim 2 (Currently Amended): A method to provide continuity of service in a radio broadcasting system, wherein the radio broadcast system includes at least one modem using a COFDM technique, and said radio broadcasting system is configured to transmit N time frequency cells modulated independently of one another, the method comprising:

at transmission,

sending a number  $N_1$  of cells conveying signals for transmission of a digitized audio signal  $S_1$ , and

sending a number  $N_2$  of cells conveying signals for transmission of an analog signal  $S_2$ ;

at reception,

replacing the digitized audio signal  $S_1$  by the analog signal  $S_2$  conveyed by the cells  $N_2$ , when the signals of the  $N_1$  cells cannot be decoded, wherein

at transmission, one or more preprocessing steps are performed, including ~~lowpass filtering, sampling, and~~ introducing a delay for the analog signal  $S_2$  ~~are performed~~.

Claim 3 (Previously Presented): The method according to claim 2, further comprising compressing the dynamic range before introducing the delay for the analog signal  $S_2$ .

Claim 4 (Currently Amended): The method according to claim 2, further comprising:  
at reception, separating at least the digitized audio signal  $S_1$  from the signal analog  $S_2$ ;  
and

performing validation of the digitized audio signal  $S_1$  in decodable or non-decodable form before the replacing ~~step~~.

Claim 5 (Previously Presented): The method according to claim 2, further comprising:

at reception, post-processing the analog signal  $S_2$ , wherein said post-processing includes at least rejecting background noise.

Claim 6 (Currently Amended): The method as in any one of ~~claims 1~~ claims 2 to 5, wherein a proportion of cells  $N_1$  for a passband of about 10 kHz ranges from 50% to 80% of a quantity  $N$  of available cells.

Claim 7 (Currently Amended): A radio broadcasting system including at least one modem using a COFDM technique, said modem being represented in a time frequency space by several elementary cells comprising  $N$  available cells, wherein the system comprises:

a transmitter, wherein said transmitter includes,

a device configured to distribute signals for transmission of a digitized audio signal  $S_1$  in a number  $N_1$  of cells and signals for the transmission of analog audio signals  $S_2$  in a number  $N_2$  of cells; and

a device configured to obtain a compression of a dynamic range of the analog audio signal  $S_2$ .

a receiver, wherein said receiver includes,

a device configured to differentiate, in a received signal  $S_r$ , between at least the digitized audio signal  $S_1$  and the analog audio signal  $S_2$ ,

a device configured to determine if the digitized audio signal  $S_1$  is in decodable form, and

a device configured to replace the digitized audio signal  $S_1$ , which is not in decodable form, with the analog audio signal  $S_2$ .

Claim 8 (Currently Amended): A radio broadcasting system comprising including at least one modem using a COFDM technique, said modem being represented in a time frequency space by several elementary cells comprising  $N$  available cells, at least one

transmitter and at least one receiver, wherein the system comprises at least one of the following elements:

a transmitter, wherein said transmitter includes,

a device configured to distribute signals for transmission of a digitized audio signal  $S_1$  in a number  $N_1$  of cells and signals for the transmission of analog audio signals  $S_2$  in a number  $N_2$  of cells; and

a device configured to introduce a delay into the analog audio signal  $S_2$ .

said transmitter further includes at least one of,

a lowpass filter at the receiver configured to filter the analog audio signal  $S_2$ ,

a system configured to sample the analog audio signal  $S_2$ ,

~~a device configured to introduce a delay,~~ and

a device configured to obtain a compression of a dynamic range of the analog audio signal  $S_2$ ;

a receiver, wherein said receiver includes,

a device configured to differentiate, in a received signal  $S_r$ , between at least the digitized audio signal  $S_1$  and the analog audio signal  $S_2$ ,

a device configured to determine that the digitized audio signal  $S_1$  is in decodable form, and

a device configured to replace the digitized audio signal  $S_1$ , which is not in decodable form, with the analog audio signal  $S_2$ .

Claim 9 (Currently Amended): A radio broadcasting system comprising including at least one modem using a COFDM technique, said modem being represented in a time frequency space by several elementary cells comprising  $N$  available cells, at least one

transmitter and at least one receiver, wherein the system comprises at least one of the following elements:

a transmitter, wherein said transmitter includes,

a device configured to distribute signals for transmission of a digitized audio signal  $S_1$  in a number  $N_1$  of cells and signals for the transmission of analog audio signals  $S_2$  in a number  $N_2$  of cells;

a receiver, wherein said receiver includes,

a device configured to differentiate, in a received signal  $S_r$ , between at least the digitized audio signal  $S_1$  and the analog audio signal  $S_2$ ,

a device configured to perform a windowing on the received signal  $S_r$  on a portion of the received signal that is supposed to be stable,

a device configured to determine if the digitized audio signal  $S_1$  is in decodable form,

a device configured to replace the digitized audio signal  $S_1$ , which is not in decodable form, with the analog audio signal  $S_2$ , and

a device configured to perform processing operations on the analog audio signal  $S_2$ , wherein said processing operations include at least rejecting background noise.

Claim 10 (Previously Presented): The system according to any one of claims 7 to 9, wherein a number of cells  $N_1$  ranges from 50% to 80% of the value of a number of free cells  $N$  in the modem for a frequency band of about 10 KHz.

Claim 11 (New): The method according to claim 2, wherein the preprocessing steps further include lowpass filtering and sampling.